

NEW ENGLAND FISHERY MANAGEMENT COUNCIL

Habitat/Marine Protected Areas/Ecosystems

I. STATUS

Meetings:

Committee: The Habitat Committee met on May 16 to discuss changes to the Phase I Omnibus document, including the final Phase I HAPCs, and the continuing development of the Phase II vulnerability analysis.

The next Committee meeting has not been scheduled, but is anticipated for early July.

Habitat/MPA/Ecosystem Plan Development Team: The PDT met via conference call on May 8 to discuss developing the Phase II vulnerability analysis.

The next PDT meeting has not been scheduled, but will be held in early June.

Habitat/MPA/Ecosystem Advisory Panel: The Advisory Panel has not met since the last Council meeting.

The next Advisory Panel meeting has not been scheduled at this time.

II. COUNCIL ACTION

Review the Committee's recommendations for changes to the Phase I Omnibus document.

Review the Committee's strategy for the Phase II vulnerability analysis.

III. INFORMATION

1. PDT memo dated May 14, 2008 regarding Phase I Omnibus document changes
2. PDT memo dated May 14, 2008 regarding Phase I Omnibus final HAPCs
3. PDT conference call summary dated May 8, 2008
4. Committee meeting summary dated May 16, 2008

#1



New England Fishery Management Council

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 John Pappalardo, *Chairman* | Paul J. Howard, *Executive Director*

TO: Habitat Committee

FROM: Chad Demarest

DATE: May 14, 2008

RE: Changes to EFH descriptions/maps in Phase I document

Modifications to Proposed EFH Maps

1. Additional unsurveyed ten minute squares

At its June 2007 meeting, the Committee approved the addition of "missing" ten minute squares that failed to meet the four tow minimum criterion for inclusion in the analysis of trawl survey data. Further examination of survey data by the PDT identified a few additional TMS that were not considered by the Committee in June. These have been added to the appropriate maps if they are located in an area that has already been designated as EFH. Some of the unsurveyed TMS are located in coastal waters that are surveyed by the states and some are further offshore within the area surveyed by NMFS. Most are in the Gulf of Maine-Georges Bank-southern New England region.

2. ELMR areas

The original geographic coverages for the estuaries that were used in NOAA's 1994/1995 Estuarine Living Marine Resource (ELMR) Program reports for the North Atlantic and Mid-Atlantic regions were based on a 1985 NOAA National Estuarine Inventory. The seaward extent of the estuaries was defined by straight lines (e.g., headland to headland). When the NEFMC incorporated this information into the original EFH maps in 1998, the seaward boundaries of these estuaries was represented by ten minute squares that approximated, as closely as possible, the original boundaries, but in most cases included more of the coastal waters than were included originally. All the ELMR coverages in the final maps in this amendment have been converted back into the original geographic areas that were created in 1985.

3. Intersection between level 1 and level 2-defined areas

In the final maps that were created using the alternative 3 designation method, coastal portions of the EFH maps are based on level 1 (presence-absence) information derived from the ELMR

reports and from the analysis of state survey data. Ten minute squares that meet the 10% frequency of occurrence criterion (“presence”) in state survey data are represented as entire squares. In contrast, EFH coverage on the continental shelf is based on a level 2 (relative abundance) analysis of NMFS survey data and TMS are “clipped” according to the minimum or maximum depth where a given species and life stage was more abundant. In some cases, the intersection of TMS that were mapped using these two approaches created small blank areas in the maps. The PDT considered these to be artifacts and they were filled in to present a more accurate representation of the data. Most of these artifacts occurred in coastal waters, but a few also occurred along the intersection of level 1 and level 2 data at the transition between the continental shelf and slope.

4. Minimum depths in coastal waters

Whenever level 2 data were available for inshore (state surveys) or offshore (NMFS surveys) portions of the shelf, they were used to describe preferred depth, temperature, and salinity ranges for the EFH text descriptions. However, in many cases the inshore components of the maps are not defined according to the minimum depths that were used in the descriptions. That is, EFH is mapped as entire TMS or as entire ELMR areas (level 1 information, see #3), even though the text descriptions make use of level 2 information. To correct this problem, the final EFH maps have been modified to exclude portions of TMS or ELMR areas that are shallower than the minimum depths identified in the corresponding text descriptions. This improvement is consistent with the guidance provided in the EFH Final Rule (use the highest level of information available) and makes the link between the text descriptions and the maps more explicit. It is consistent with the alternative 3 method that was applied to the mapping of EFH designations on the continental shelf, and the bounding of EFH on the continental slope by maximum depths. Thus, the PDT determined these modifications to be consistent with the Council’s selection of Alternative 3.

5. Miscellaneous corrections

In a few cases, the approved method was not followed when the final maps were produced. Examples are use of the wrong life stage as a proxy (e.g., representing juveniles instead of adults to represent larval EFH), and failing to remove (or include) geographic areas that should have been omitted (or added) from (to) the maps. These errors have been corrected.

Modifications to EFH Text Descriptions

Incorporation of new information

The original 1998 EFH maps for pelagic egg and larval life stages were based on 1977-1987 survey data (MARMAP). No changes will be made to these maps since there is no new distribution information available. The original text descriptions for the pelagic egg and larval stages were based on information in the original EFH Source Documents, but were not based on any analysis of survey data included in these documents. They also refer to times of year when eggs or larvae are more abundant, to “surface” temperatures (when the data in the source documents is relative to mean water column temperatures), and (for larvae) do not include any

listing of primary prey organisms. Thus, the original text descriptions did not make full use of the available data to define preferred depth and temperature ranges and are not consistent with the new text descriptions for juveniles and adults. These text descriptions have been revised to include level 2 information in the definition of preferred depth and temperature ranges (in the same way that it was done for the benthic life stages), to identify primary prey organisms (for the larvae), to omit any reference to seasonal availability, and to correct other shortcomings in the descriptions. These corrections are consistent with the Council's preferred alternatives for EFH designation.

#2



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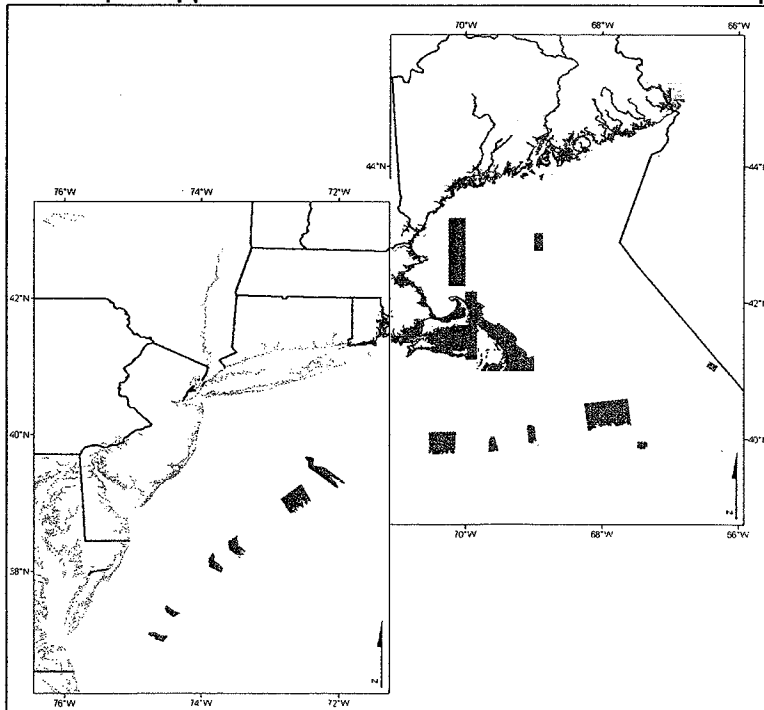
TO: Habitat Committee
FROM: Chad Demarest
DATE: May 14, 2008
RE: Phase I Habitat Areas of Particular Concern

HAPCs have been approved by the Council over the course of three meetings:

- First suite approved - June, 2007
- Great South Channel Juvenile Cod HAPC approved – September, 2007
- Canyon-area HAPCs modified – November, 2007

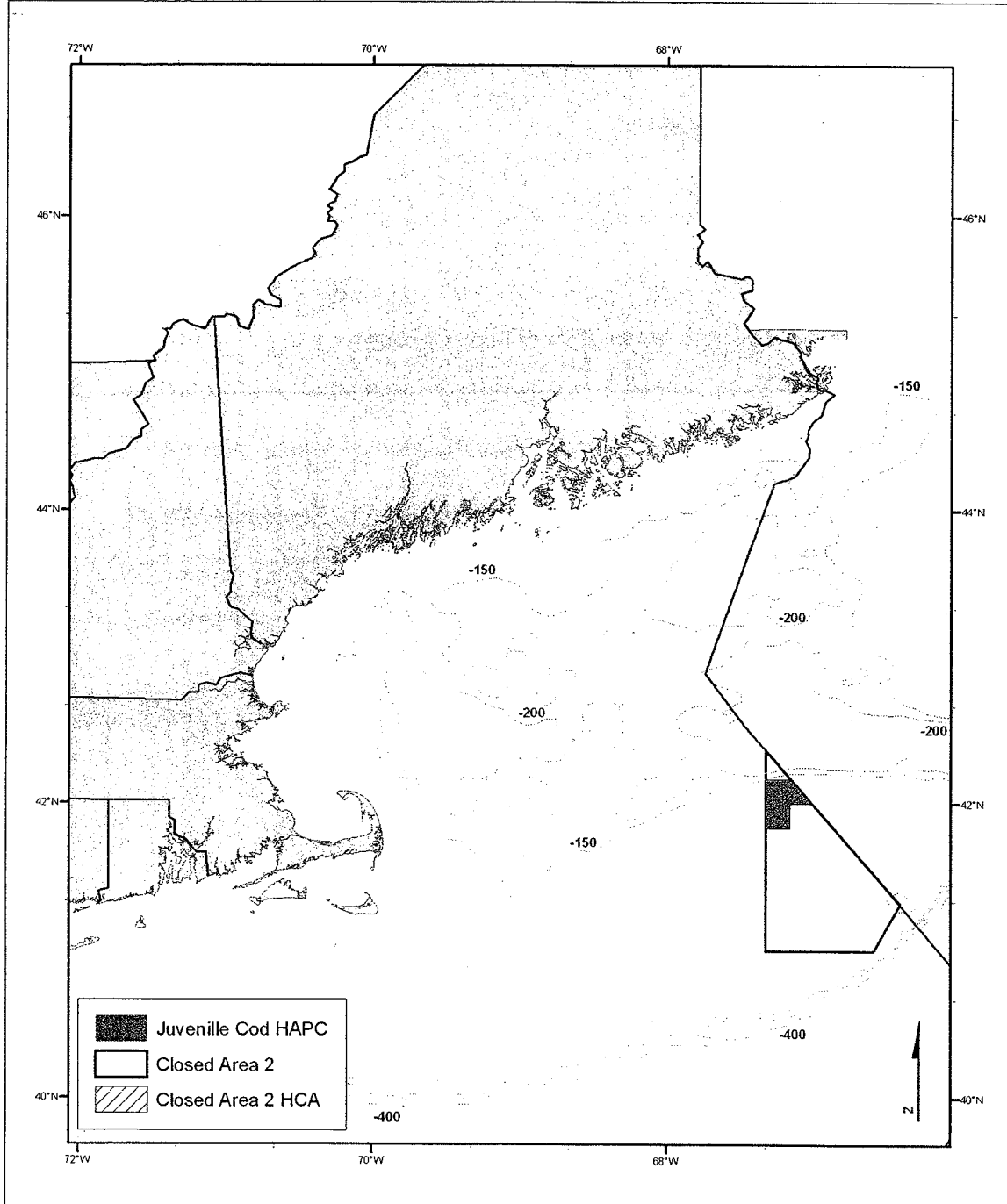
The maps that follow depict the resulting suite of 18 Habitat Areas of Particular Concern.

Map 1 – Composite map of approved HAPCs in the Omnibus Habitat Am 2 project area



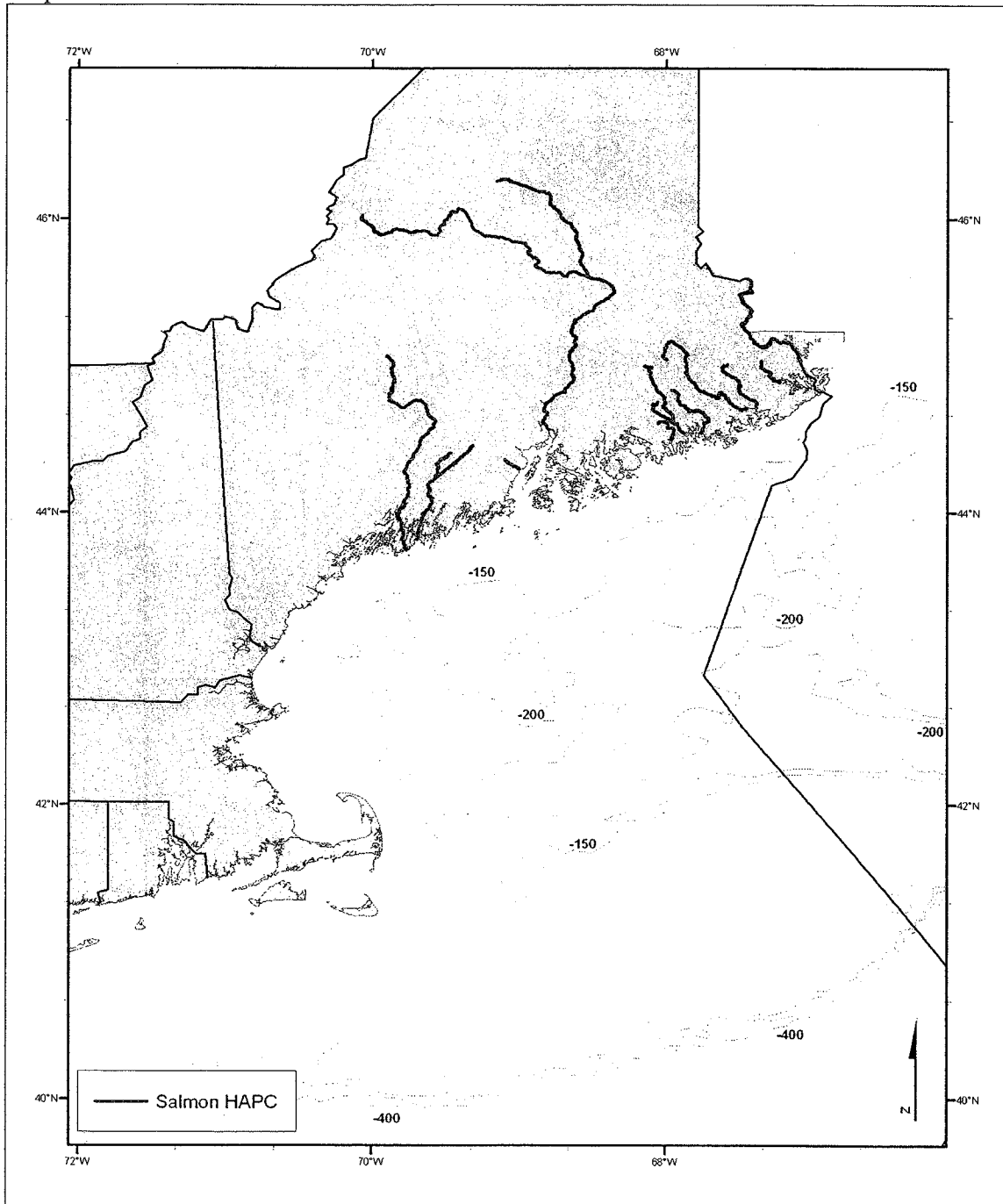
1.1.1. Juvenile Cod HAPC

Map 2. Juvenile Cod HAPC



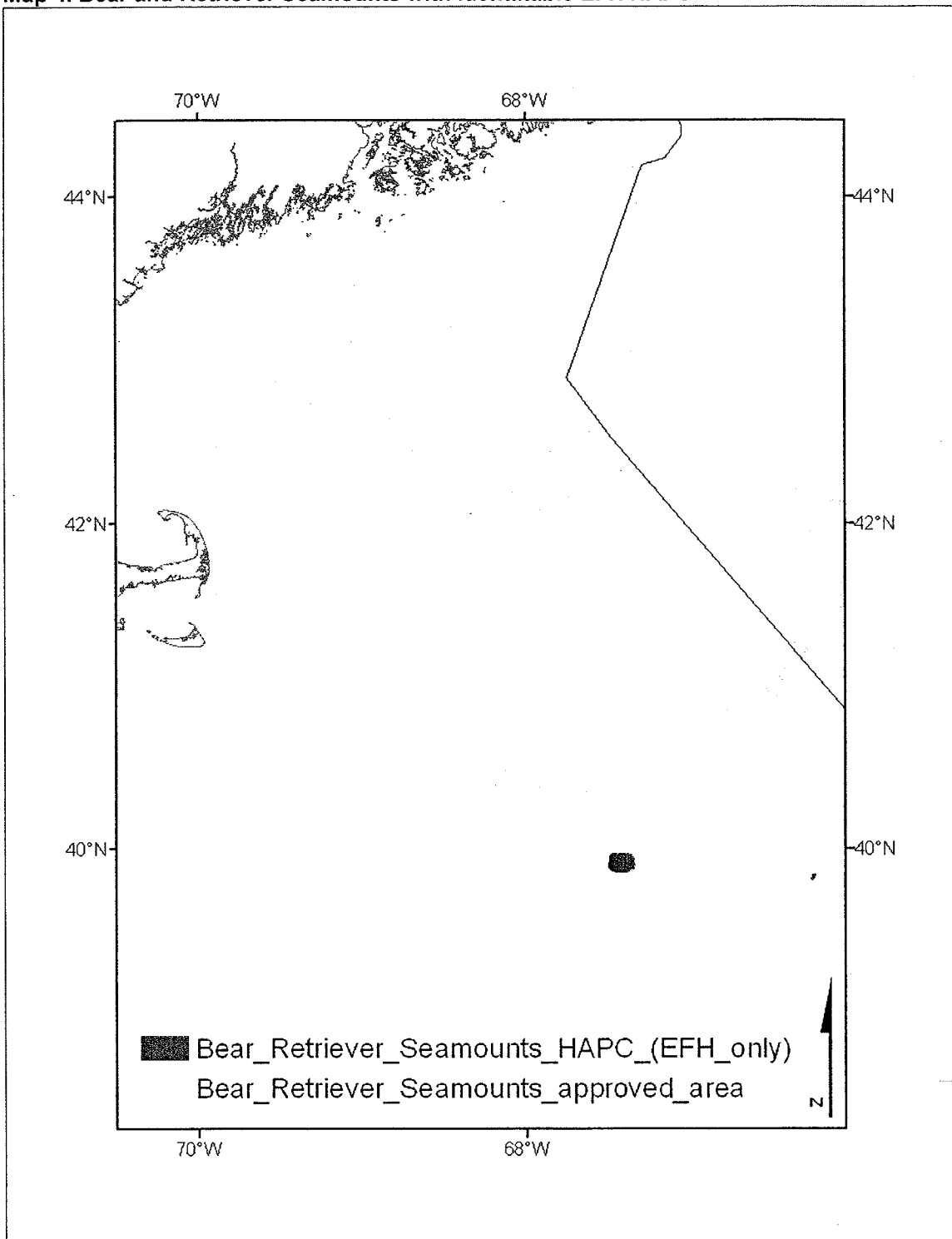
1.1.2. Atlantic Salmon HAPC

Map 3. Atlantic Salmon HAPC



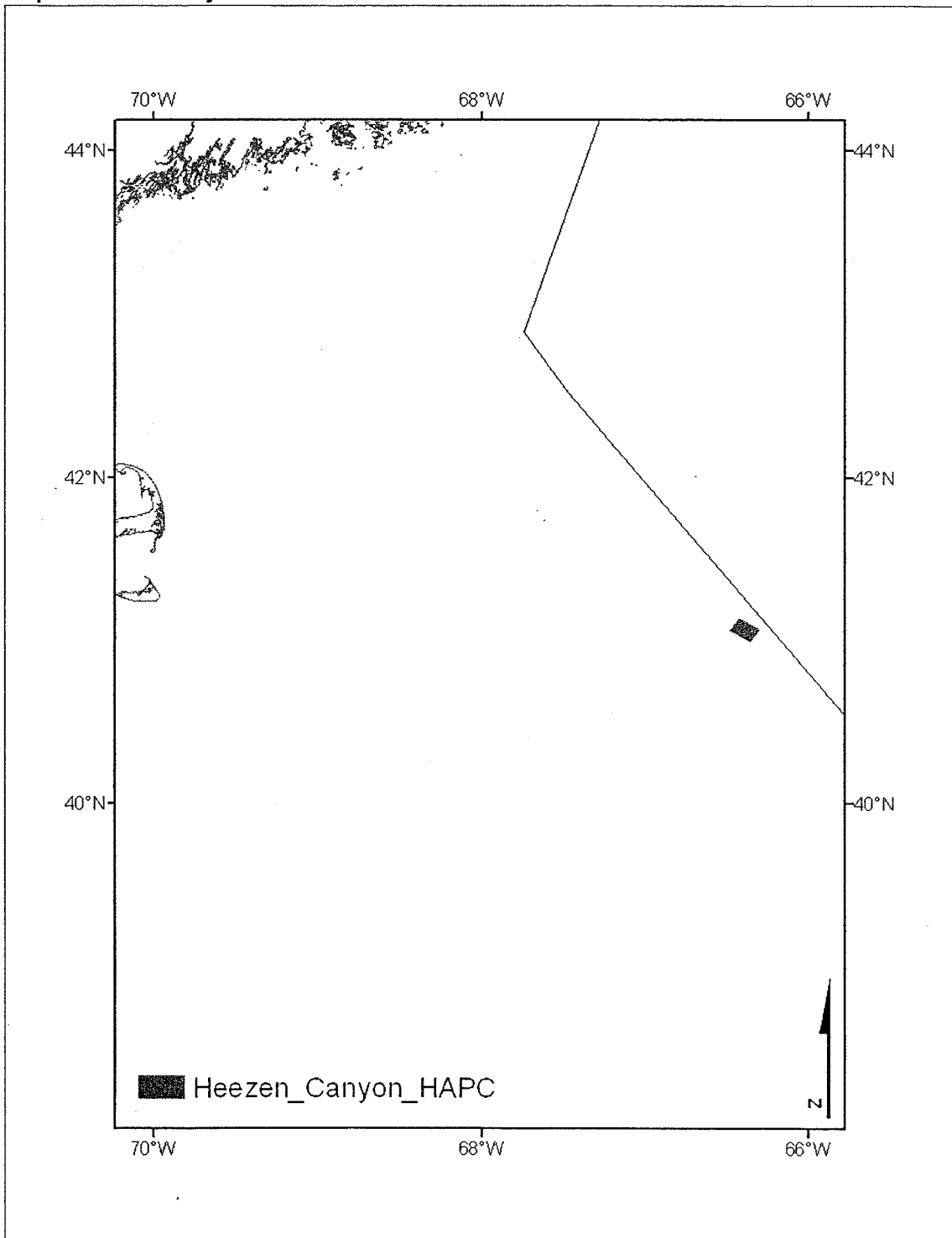
1.1.3. Bear and Retriever Seamounts with identifiable EFH HAPC

Map 4. Bear and Retriever Seamounts with identifiable EFH HAPC



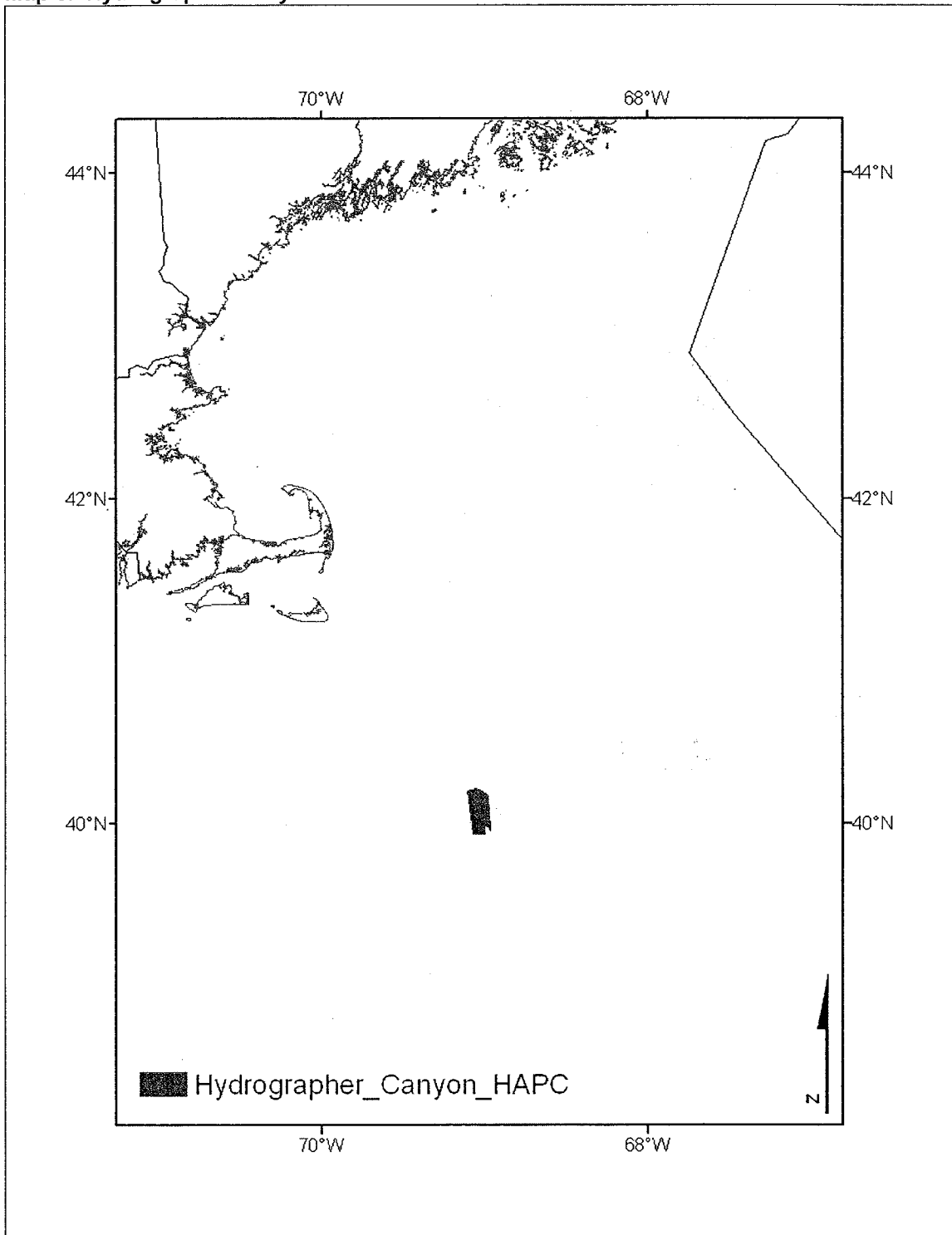
1.1.4. Heezen Canyon HAPC

Map 5. Heezen Canyon HAPC



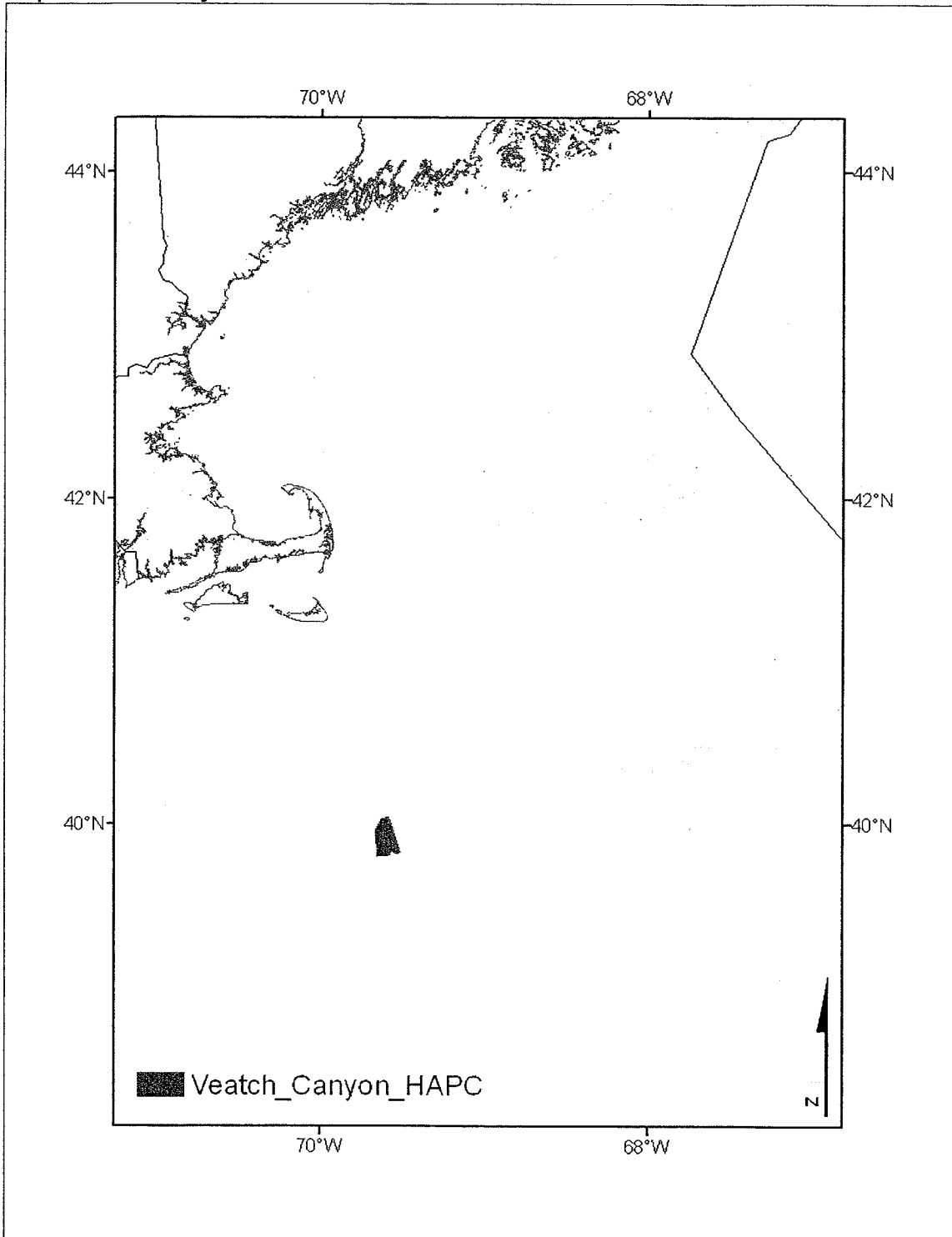
1.1.5. Hydrographer Canyon HAPC

Map 6. Hydrographer Canyon HAPC



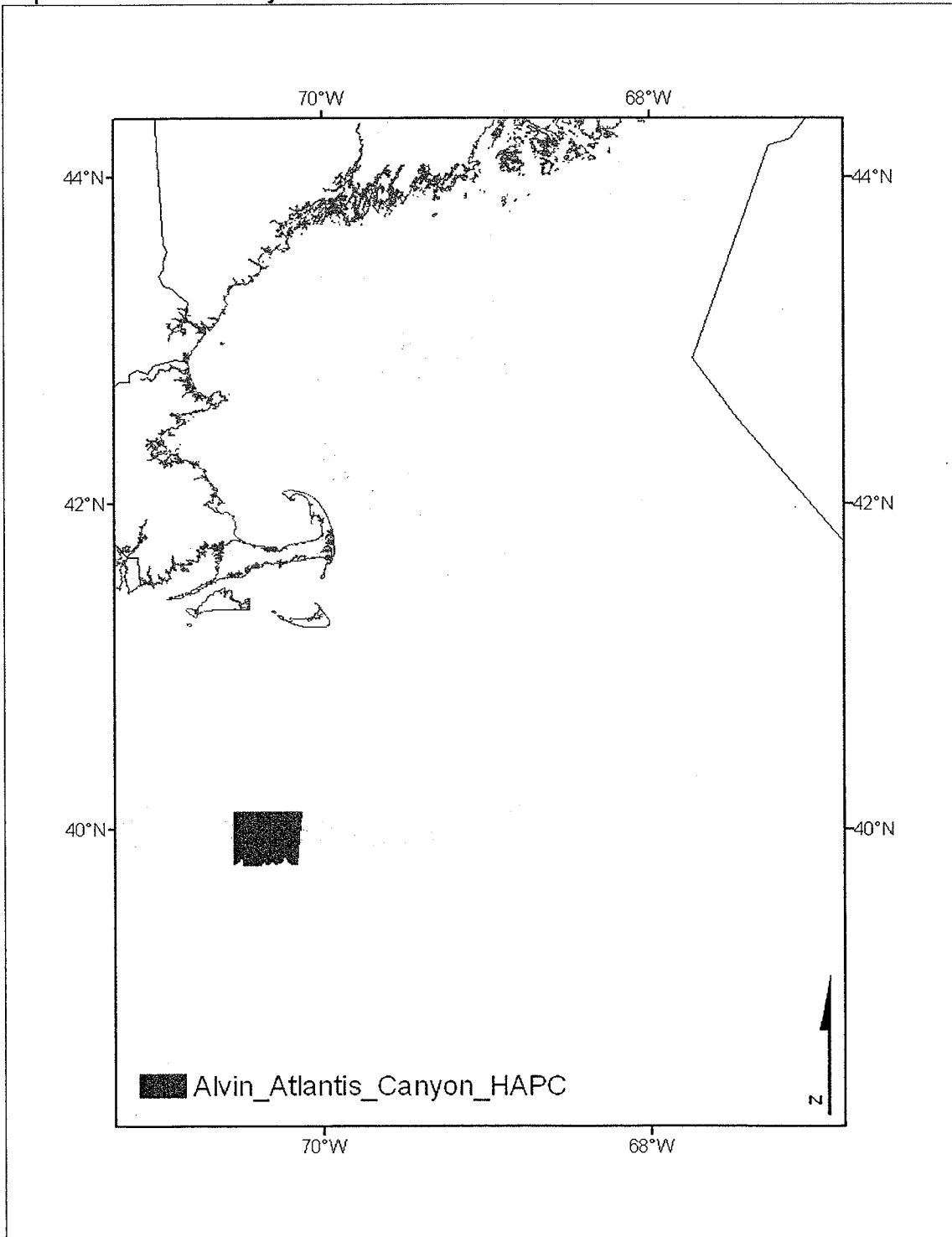
1.1.6. Veatch Canyon HAPC

Map 7. Veatch Canyon HAPC



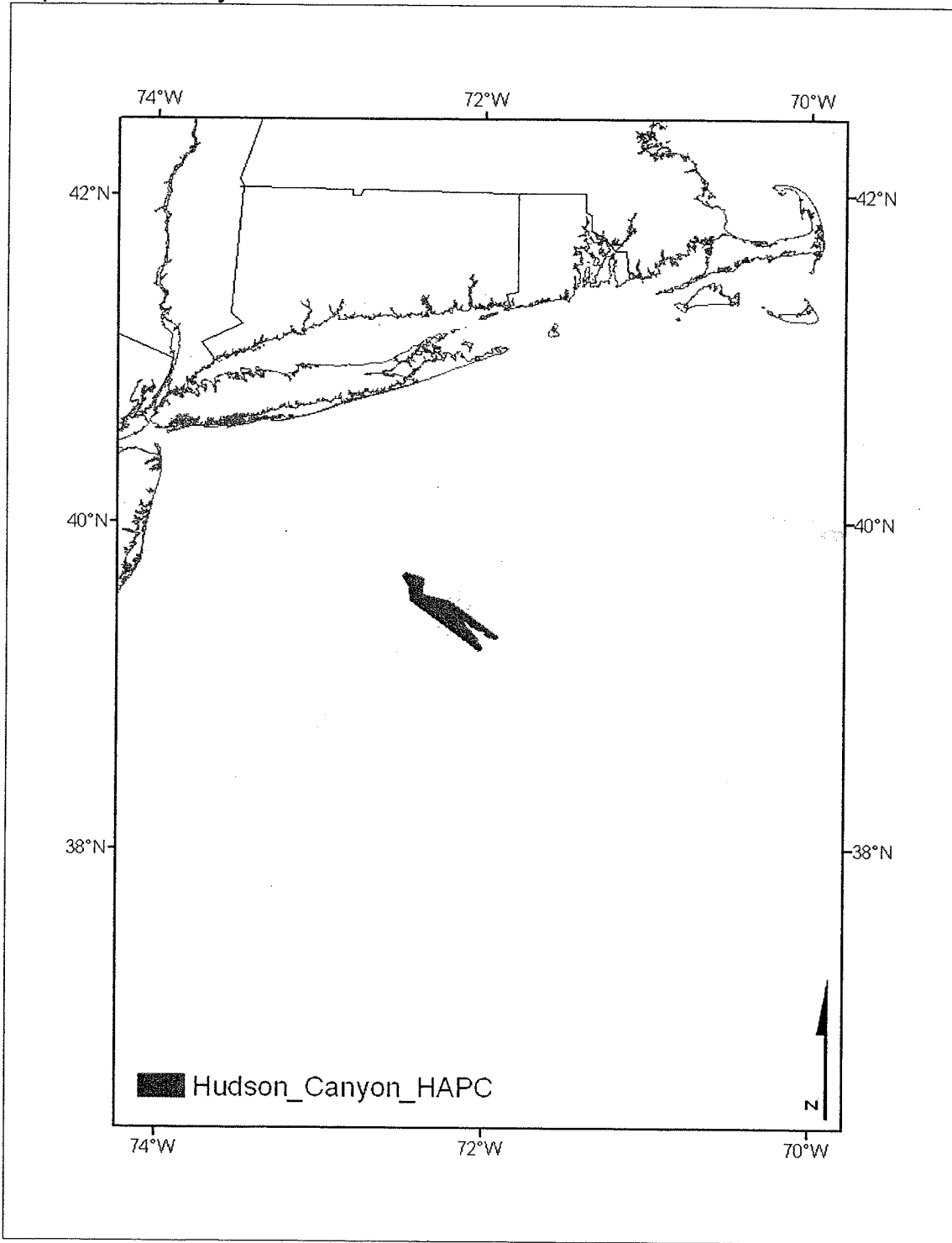
1.1.7. Alvin/Atlantis Canyon HAPC

Map 8. Alvin/Atlantis Canyon HAPC



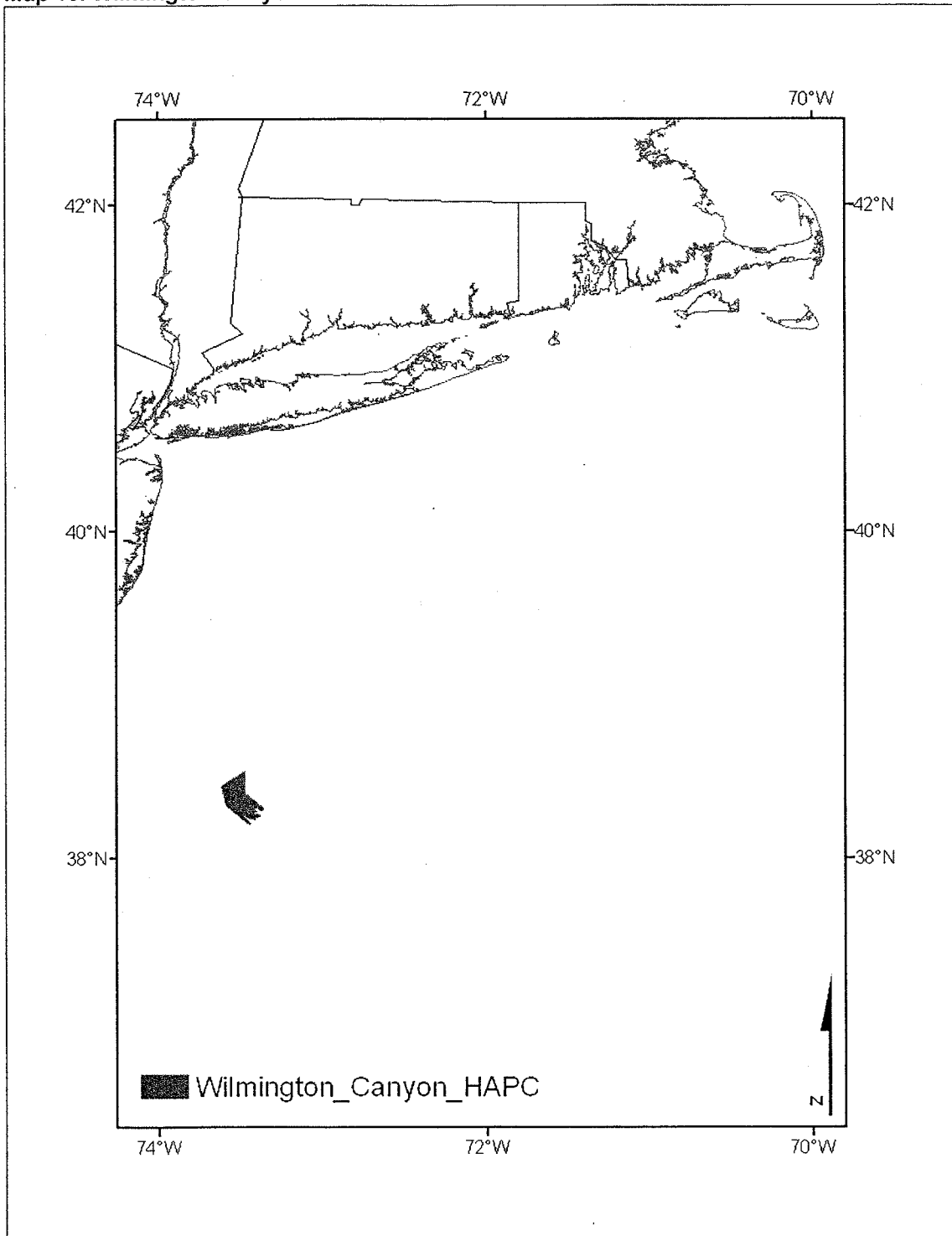
1.1.8. Hudson Canyon HAPC

Map 9. Hudson Canyon HAPC



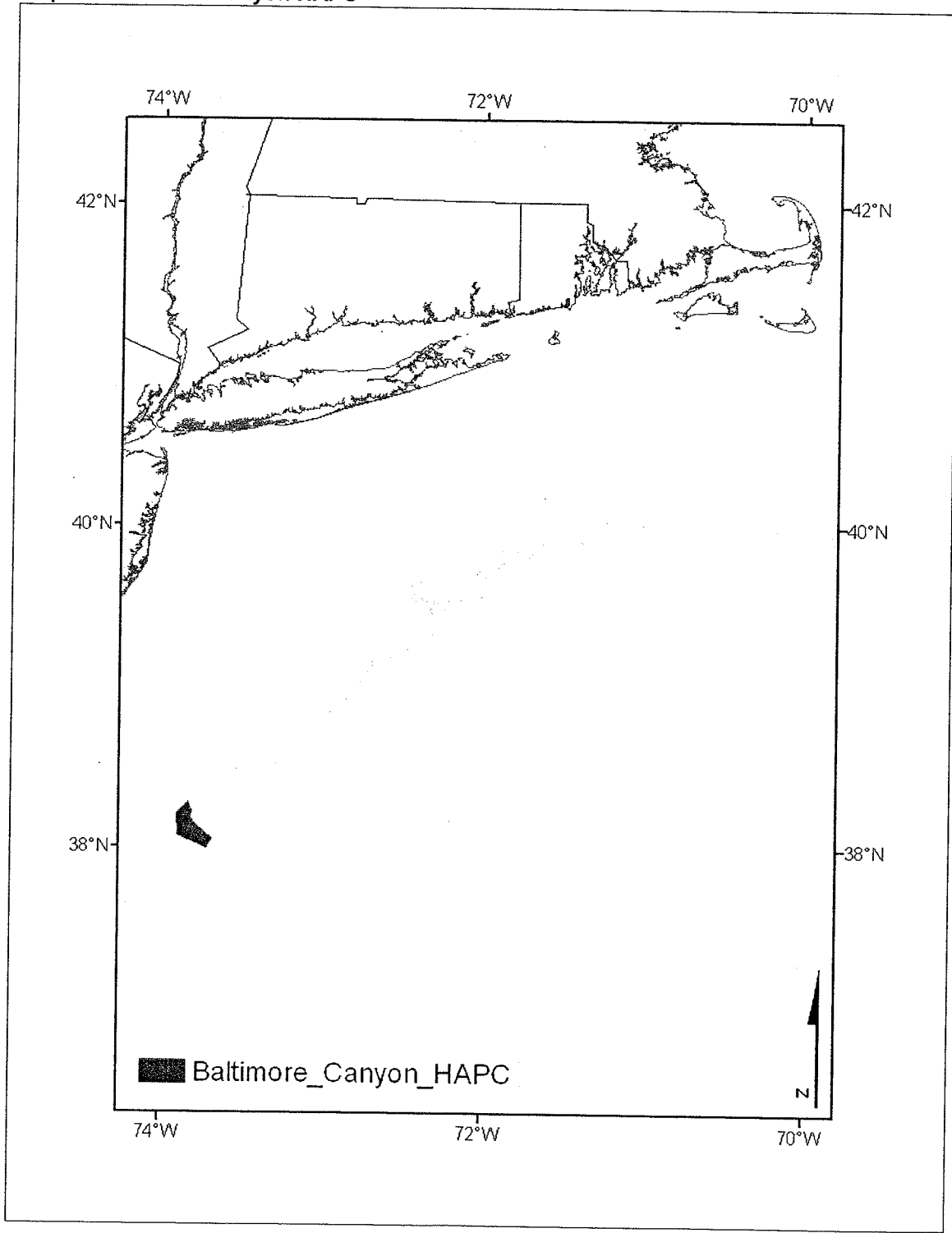
1.1.9. Wilmington Canyon HAPC

Map 10. Wilmington Canyon HAPC



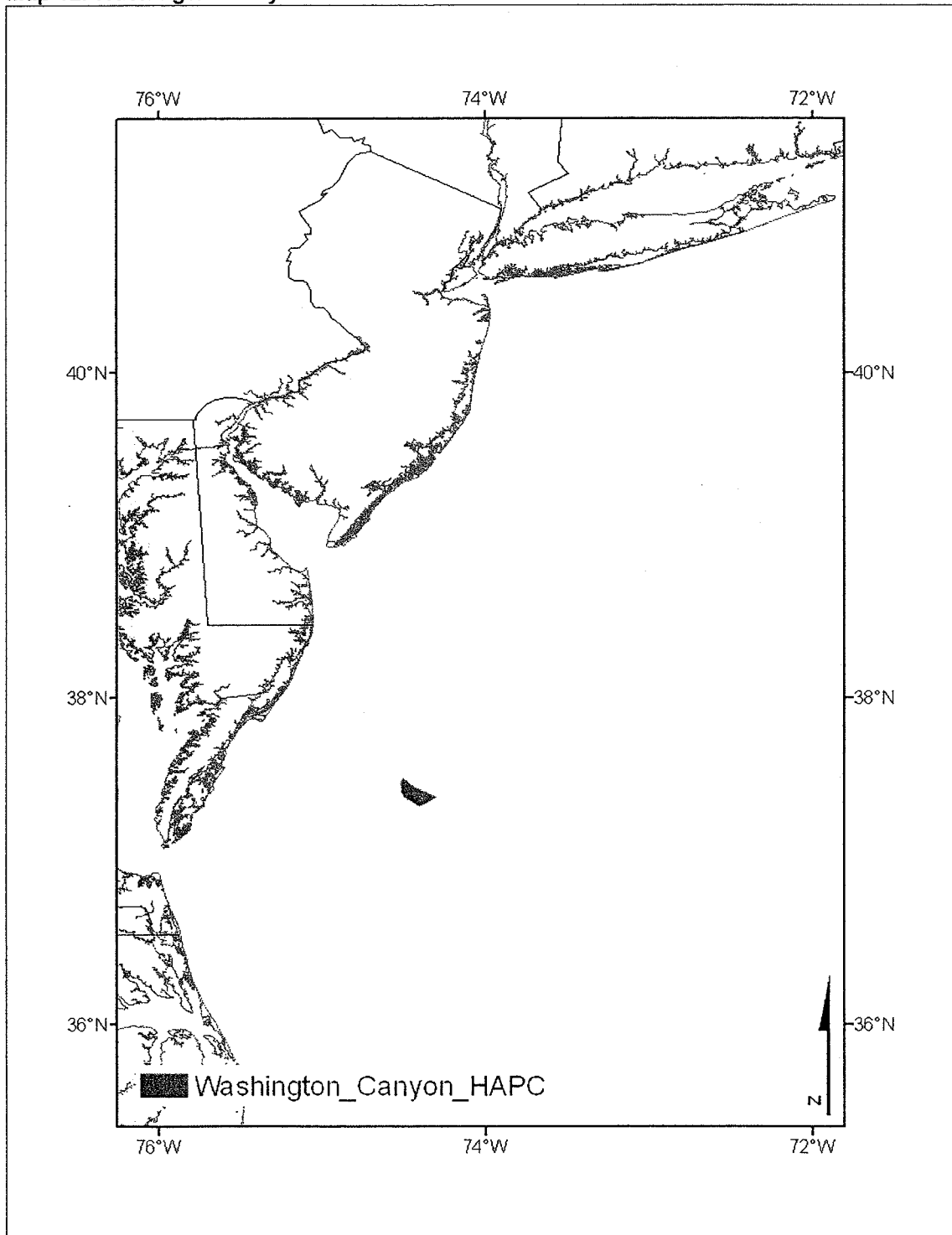
1.1.10. Baltimore Canyon HAPC

Map 11. Baltimore Canyon HAPC



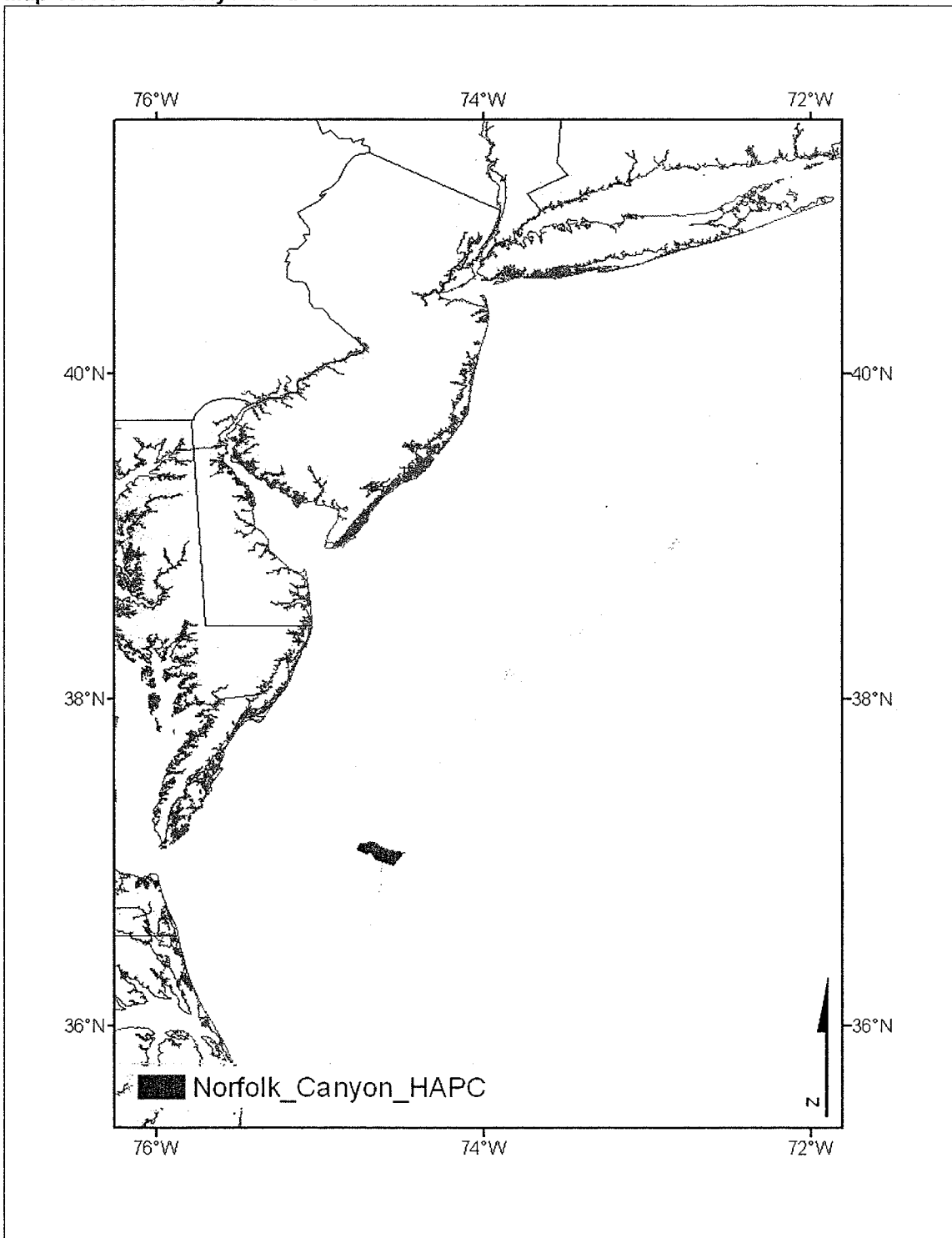
1.1.11. Washington Canyon HAPC

Map 12. Washington Canyon HAPC



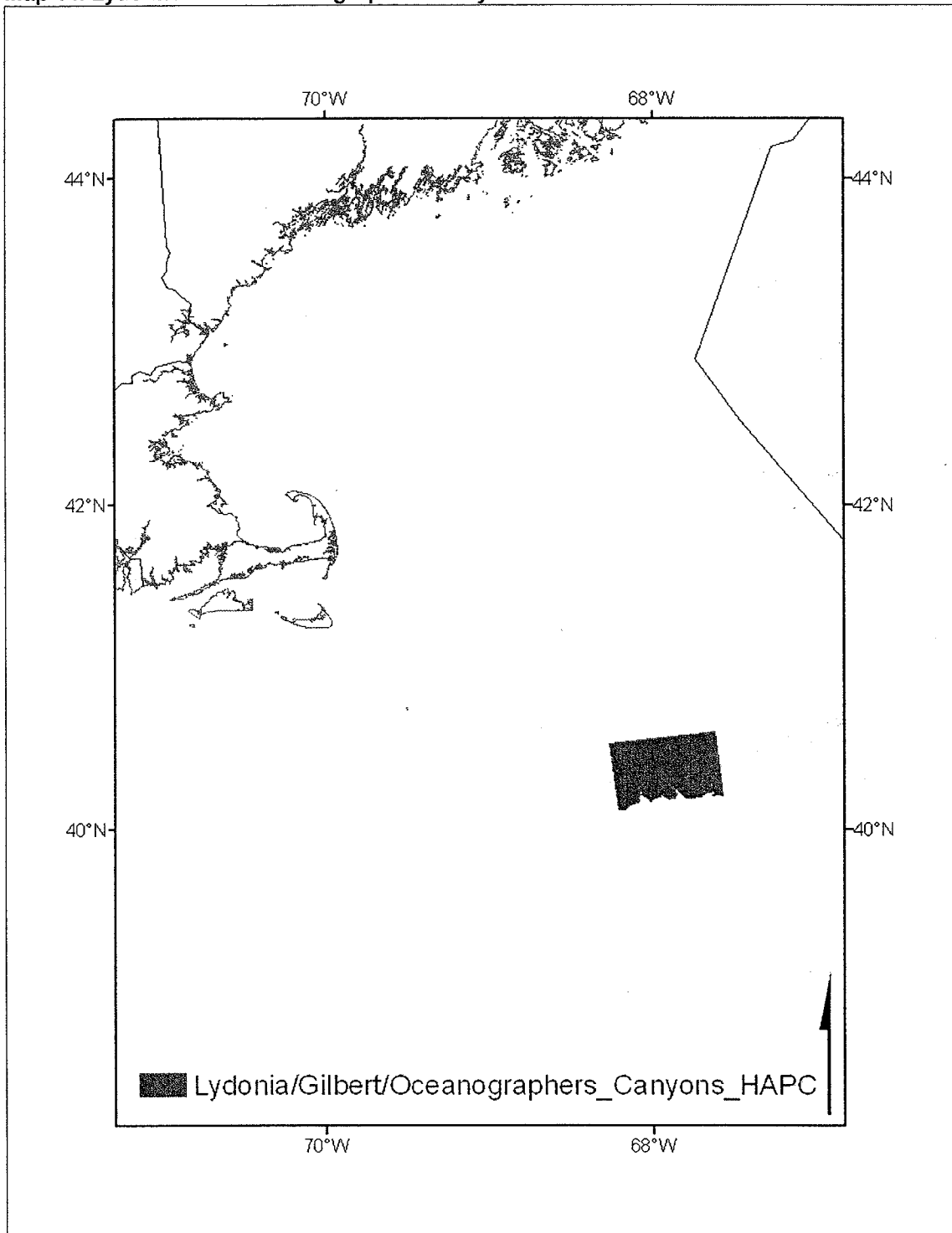
1.1.12. Norfolk Canyon HAPC

Map 13. Norfolk Canyon HAPC



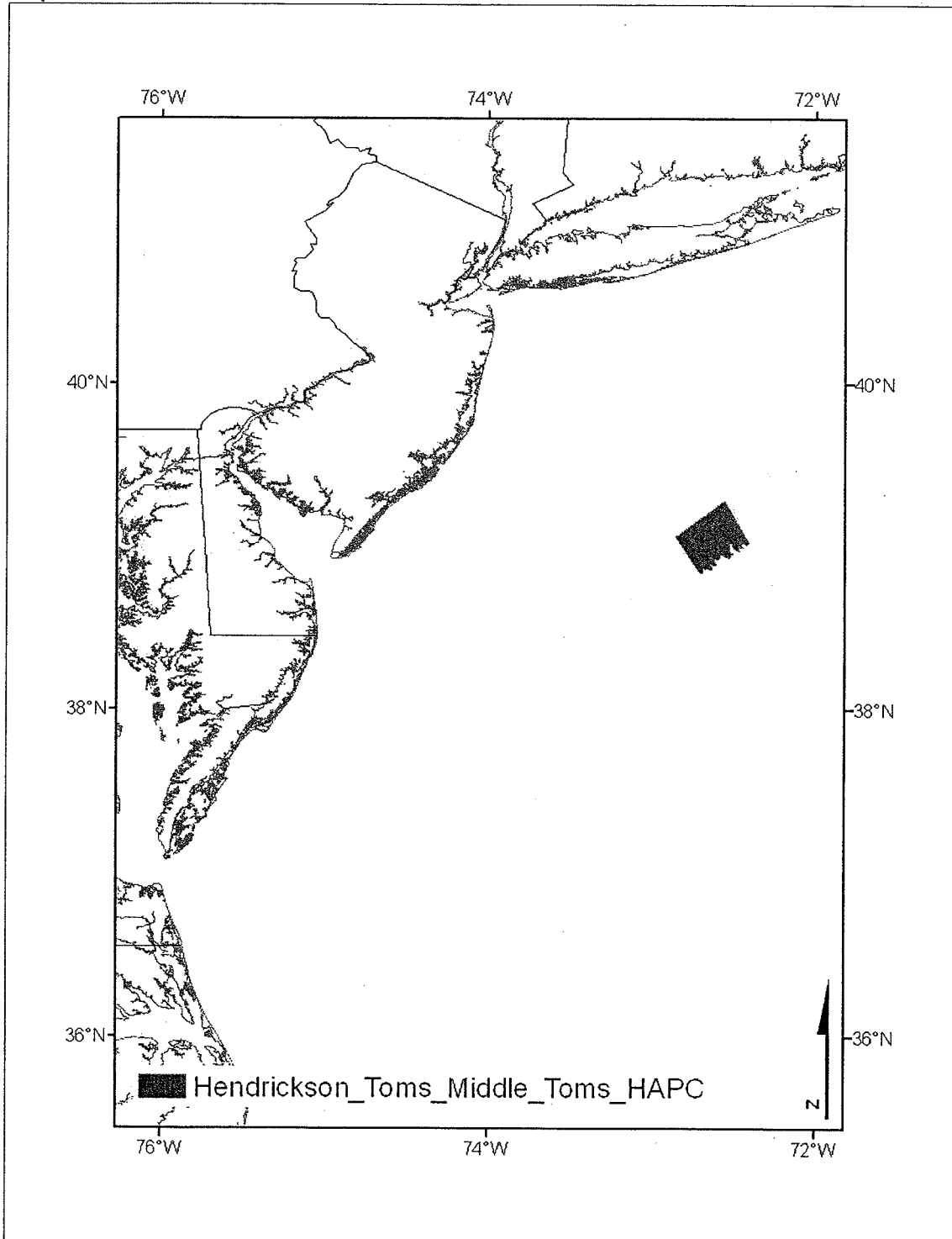
1.1.13. Lydonia/Gilbert/Oceanographers Canyons HAPC

Map 14. Lydonia/Gilber/Oceanographers Canyons HAPC



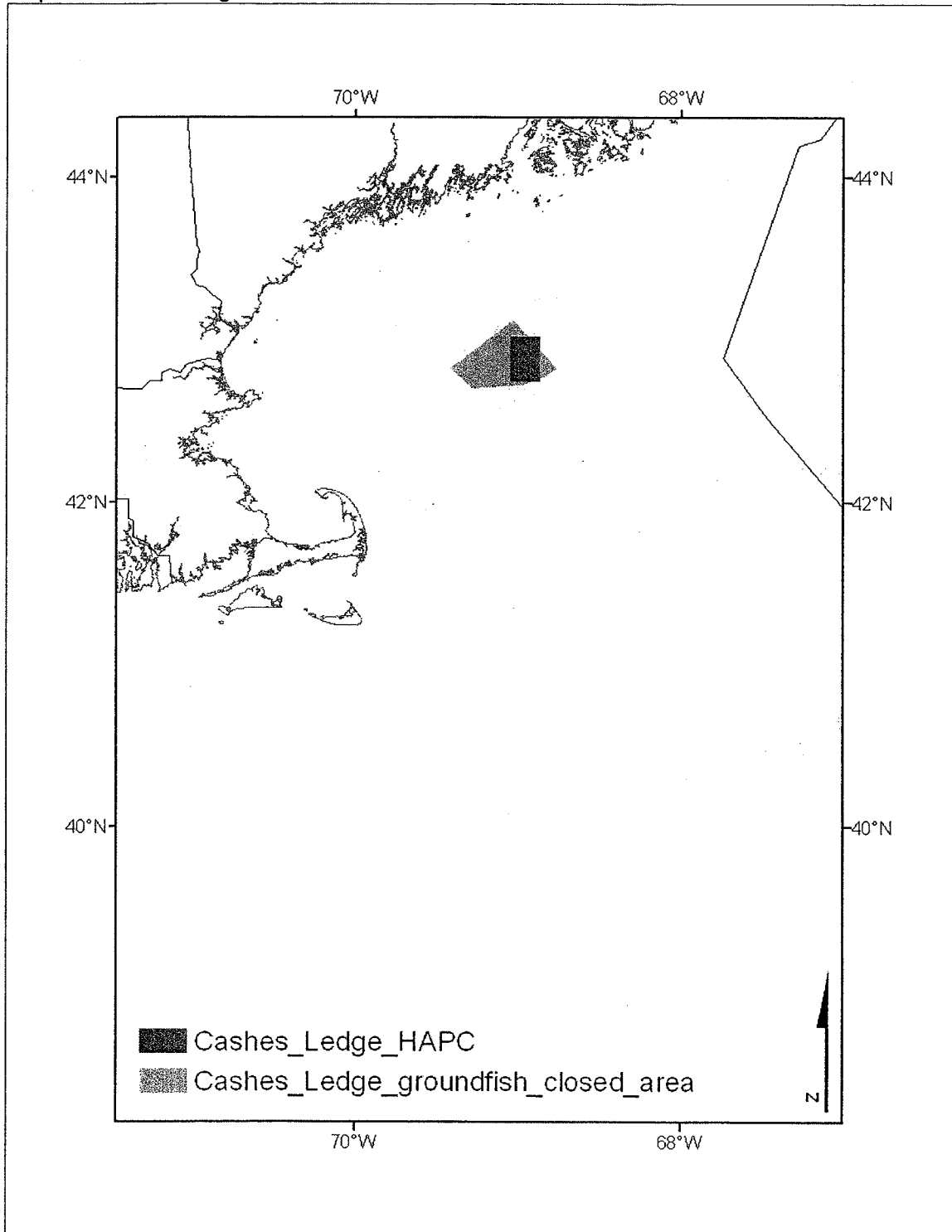
1.1.14. Hendrickson/Toms/Middle Toms Area HAPC

Map 15. Hendreckson/Toms/Middle Toms Area HAPC



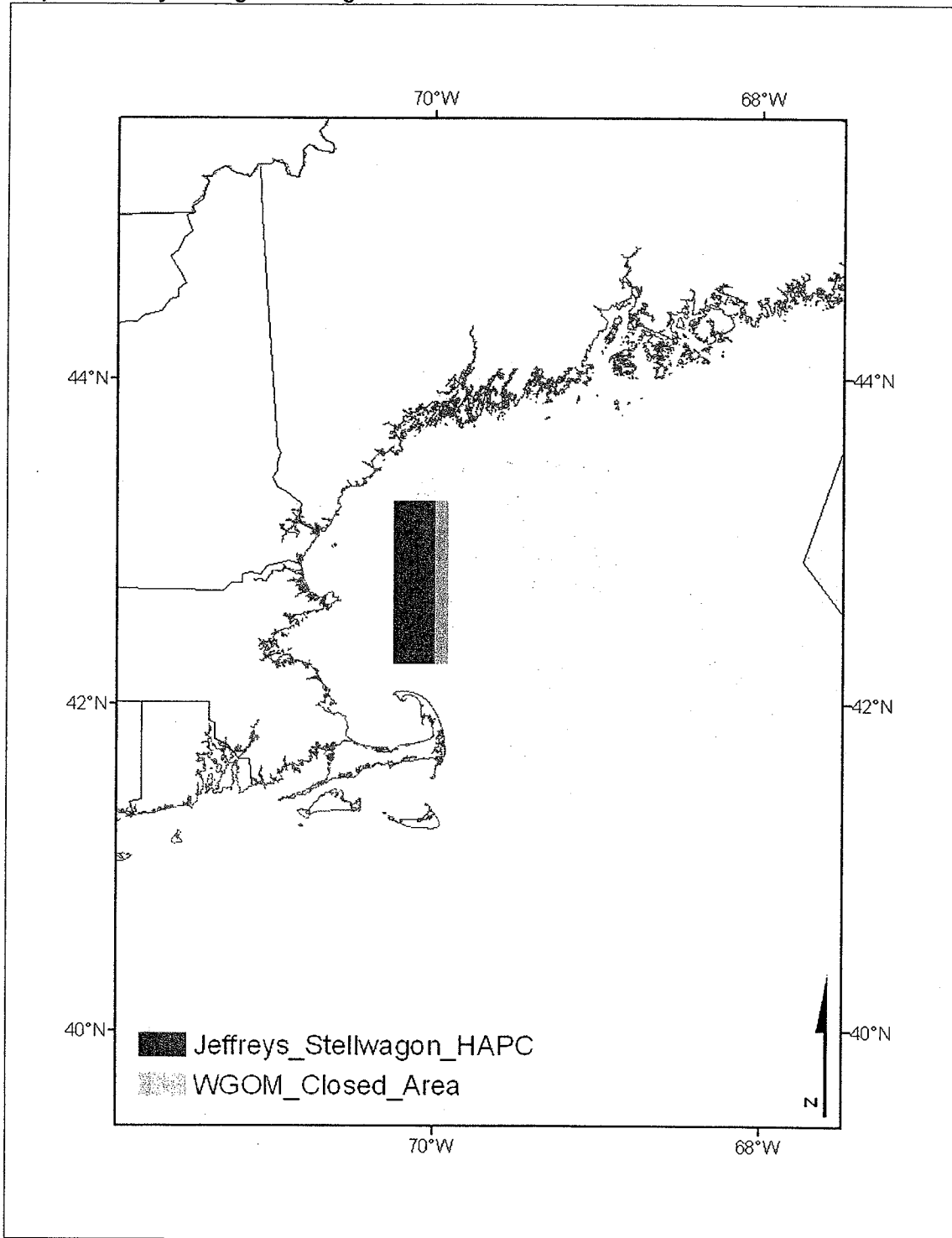
1.1.15. Cashes Ledge Area HAPC

Map 16. Cashes Ledge Area HAPC



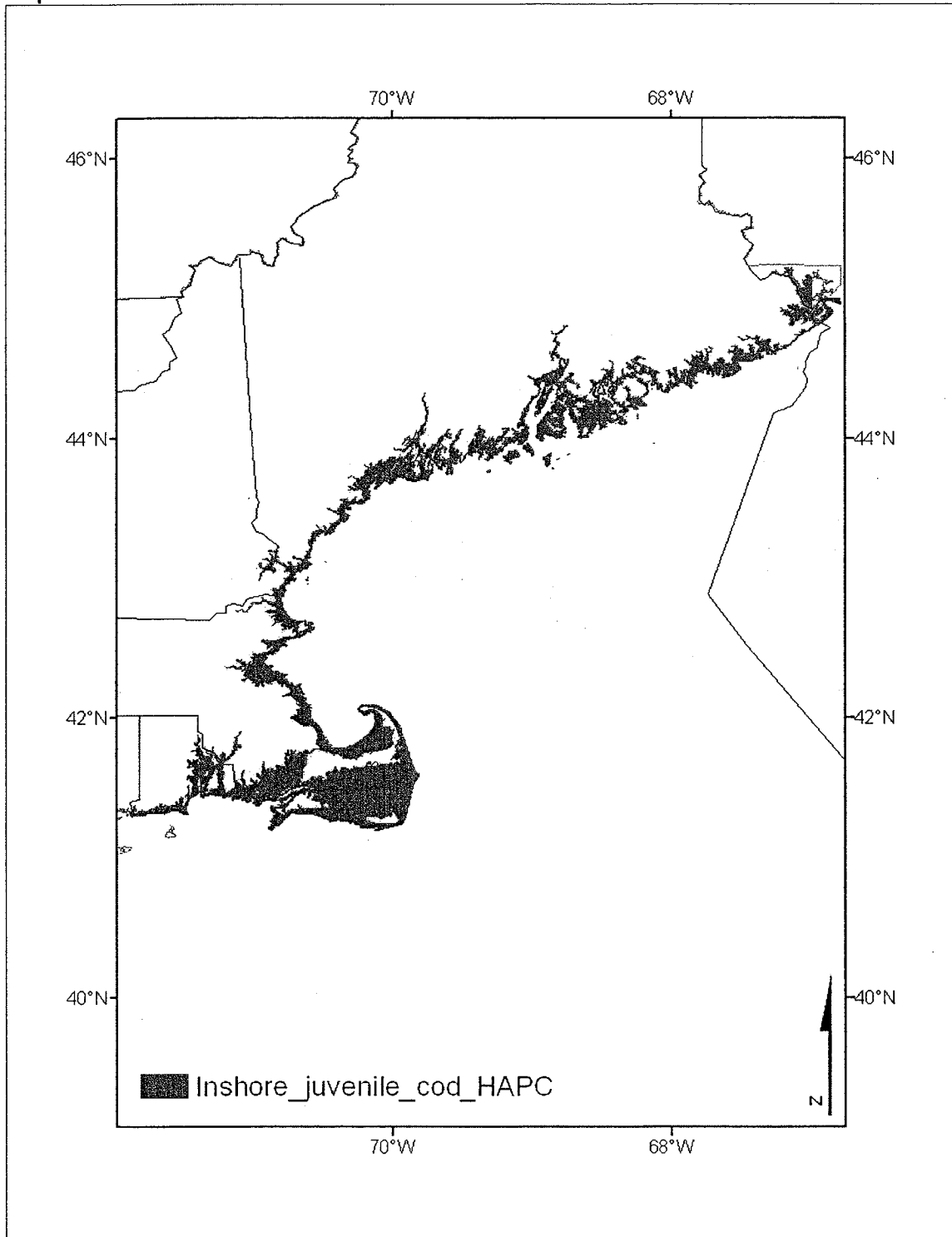
1.1.16. Jeffrey's Ledge/Stellwagen Bank HAPC

Map 17. Jeffrey's Ledge/Stellwagen Bank HAPC



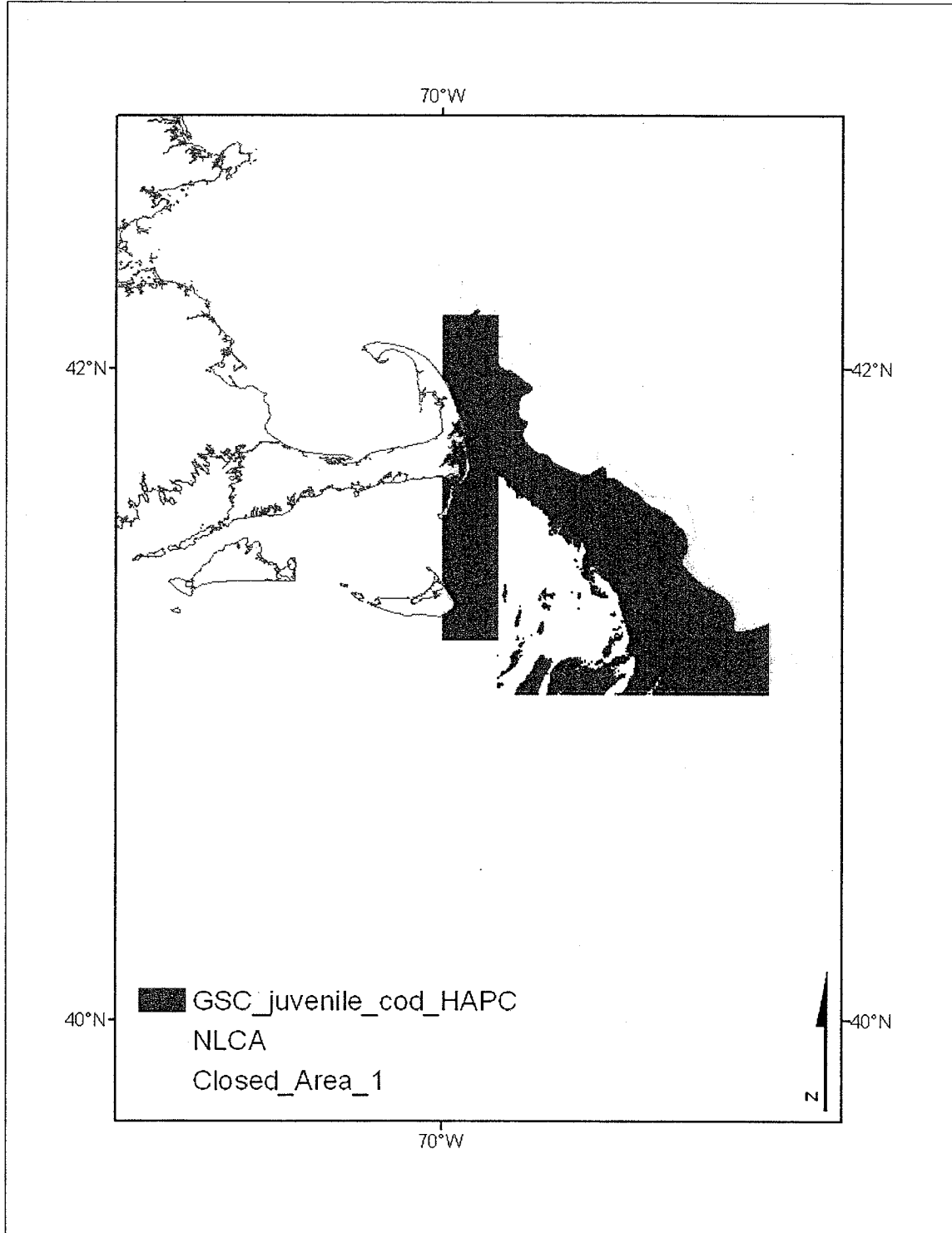
1.1.17. Inshore Juvenile Cod HAPC

Map 18. Inshore Juvenile Cod HAPC



1.1.18. Great South Channel Juvenile Cod HAPC

Map 19. Great South Channel Juvenile Cod HAPC



#3



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Habitat PDT Conference Call Summary

May 8, 2008

The PDT met via conference call on Thursday, May 8, 2008 at 10AM to discuss issues surrounding the development of an Ecological Risk Assessment (or similar framework) for Phase 2 of the Omnibus Habitat Amendment 2. Nine PDT members were present on the call, plus the Habitat Ctte Chair (Mr. David Preble). Approximately five members of the public were on the call.

The meeting was focused on the data consolidation phase of the Risk Assessment (RA), with two primary objectives:

- (1) Produce a list of data fields to be used in the RA
- (2) Devise a strategy for determining the appropriate data aggregations within each field

In addition to the two objectives, the PDT discussed the actual type of analysis to be performed. The RA had, to this point, been the analytic framework the PDT had been focusing on. The PDT discussed the need for a conceptual model prior to embarking on such an analysis. As discussed, an ERA requires a conceptual model that outlines the nature of the relationships between the source (fishing), stressors (bottom contact/disturbance by fishing gears), receptors (physical and biological structure of benthic habitats, prey species and deep sea corals) and, importantly, a hypothesis for how receptors will respond to exposure to stressors. Hypothesized dose-response relationships are then evaluated in an RA. Given the state of information of the fishing pressure-benthic habitat dose-response relationship, several members of the PDT felt that such a hypothesis could not be tested. It was suggested that rather than a traditional ERA, the PDT consider a somewhat simpler vulnerability analysis designed to evaluate the relationships between various assessment component metrics and draw out conclusions on the identified assessment endpoints. Such an analysis could be fed into a spatially explicit model if the data were deemed sufficient. Another PDT member proposed that this approach may be consistent with non-quantitative ERA, and that what we may be proposing is simply a hybrid ERA without the hypothesized relationships posited up front.

On balance, the PDT felt more comfortable with the vulnerability assessment approach relative to a traditional quantitative ERA, due primarily to the uncertainty in the dose-response relationship and our inability to adequately test any hypothesis we may pose at the outset. The PDT also noted that the vulnerability assessment approach is likely to be less time-intensive, a necessary provision given the Council's tight timeline.

Data consolidation: data needs for the Risk Assessment

The following data types were deemed appropriate for exploration at this early stage:

- (1) Gear types
- (2) Fishing intensity levels
- (3) Habitat types
 - a. Geological
 - b. Biological/biota
 - c. Deep sea coral
 - d. Prey
- (4) Recovery/resilience
- (5) Natural disturbance

Data consolidation: strategy for aggregating within each field

The objective here is to determine appropriate levels of data aggregation within each data field. To accomplish this, the Chair assigned each Field to a PDT member or members. For each Field (and sub-field), the assigned member will produce a short discussion paper explaining the preferred aggregation approach, and the basis for this preference. The discussion should include the temporal/spatial extent of available data sources, their limitations and strengths, and how/if they have been utilized in past similar analyses, or in the published literature.

Assignments as follows:

- (1) Gear types (*Eayrs/Stevenson*)
- (2) Fishing intensity levels (*Demarest/Eayrs*)
- (3) Habitat types
 - a. Geological (*Stevenson/Harris/Malkoski*)
 - b. Biological/biota (*Harris/Malkoski*)
 - c. Deep sea coral (*Auster*)
 - d. Prey (*Dow/Grabowski*)
- (4) Recovery/resilience (*Dow*)
- (5) Natural disturbance (*Demarest/Harris*)

The PDT will review these discussion papers in plenary at its next meeting.

The call concluded when we were put on hold by a listening member of the public and the on-hold music made continuing the call impractical, at about 11:25 AM.



#4

**New England Fishery Management Council
Habitat/MPA/Ecosystems Committee
May 16, 2008
Mansfield, MA**

Committee Members: Mr. David Preble (Chair), Mr. David Goethel (Vice Chair), Mr. Dennis Spitsbergen, Mr. Jim Salisbury, Mr. David Simpson, Mr. Lou Chiarella and Mr. Doug Grout

Council Staff: Mr. Chad Demarest (PDT Chair)

NMFS Staff: Dr. David Stevenson

Others: Approximately 10 audience members

The Habitat/MPA/Ecosystems Committee met in Mansfield, MA on May 16, 2008 to discuss issues related to the Draft Environmental Impact Statement (DSEIS) for Phase I of the Essential Fish Habitat (EFH) Omnibus Amendment 2, and to discuss the development of Phase II of this Amendment. Specifically, the Committee reviewed changes to the approved Phase I EFH descriptions and a memo summarizing the final HAPC boundaries. The Committee then discussed the continued development of the Phase II vulnerability analysis, and reviewed the status of adverse impacts from fishing to fish habitat for the seven other regional Fishery Management Councils. The Committee reviewed the final version of the National Framework for Marine Protected Areas comments letter. Finally, the Committee had a brief discussion on the impact of comments letters submitted by NOAA and the Council with regard to a beach renourishment project for Winthrop, MA.

Phase I changes and final HAPCs

The Committee Chair summarized a PDT memo detailing specific changes that have been incorporated into the Phase I EFH Omnibus Amendment 2 document. Brief examples of the changes were provided.

The PDT Chair gave a short presentation on the revised HAPC boundaries, which were also summarized in a PDT memo distributed to the Committee.

Committee discussion

The Committee discussed again the idea that the HAPCs were restricted by the boundaries of concomitant EFH designations. Several members expressed their unease with the approach that, while the boundaries of the HAPCs were dictated in part by the extent of EFH, they were submitted, evaluated and approved by the Council specifically to protect deep sea corals. Other

Committee members were unsure of how any management measures that correspond to the HAPCs may be applied across gear types and, specifically, to management plans not under the New England Council's authority. NMFS (Mr. Chiarella) stated that, should the Council decide to restrict fishing in any particular areas under the new MSA Section 408 deep sea coral (DSC) authority, it would likely apply only to those fisheries that operate under the fishery management plans of the NEFMC. If similar areas were to have fishery management restrictions imposed to protect essential fish habitat, specific gear types could have their fishing activities restricted regardless of the controlling fishery management plan. The Committee expressed a clear desire to coordinate any potential management restrictions with the Mid-Atlantic FMC, and was interested in more clearly exploring the Council's MSA 408 authorities. Several Committee members spoke in favor of removing the current HAPCs from the Phase I document and starting from the beginning with DSC protection, either as a part of Phase II or as a separate, stand-alone initiative.

Audience discussion

Mr. Smolowitz (Fisheries Survival Fund) reminded the Committee that a similar motion eliminating the HAPCs had been put forward previously, and voted down. He stated that the correct approach to the problem may be to designate a coral reserve across the whole shelf as bounded by particular depth contours. He also wanted to know if the HAPCs would be undergoing further review, and if there would be additional evaluation of their suitability as HAPCs. Ms. Spinazzola (Offshore Lobsterman's Association) was concerned about the idea of re-evaluating the HAPCs due to the known data limitations, and wanted to be sure that an economic impacts analysis would accompany any management restrictions that may be contemplated in the future. Mr. Brogan (Oceanna) requested that the Committee recommend to the Council that a stand-alone joint management action (with the MAFMC) be initiated to protect DSC. Mr. Minkiewicz (Fisheries Survival Fund) stated that a motion to eliminate the canyon-area HAPCs and initiate a new amendment for DSC would be appropriate.

The Committee discussed these issues and made the following motions:

Motion 1

Mr. Simpson moves and Mr. Grout seconds,

that the Committee recommend the Council initiate a joint management action with the MAFMC to protect deep sea coral. As part of this action, the Council would consider revising or removing the currently proposed HAPC designations in the canyon areas and seamounts in the Omnibus Habitat Am.

Motion passed on a show of hands (5/1/0)

Committee discussion on the motion

The maker of the motion explained that the intent was to address DSC issues holistically and in conjunction with the MAFMC, and that the HAPCs should be removed from document in the most expeditious way. One Committee member pointed out that the motion did not specifically address immediately removing the HAPCs from the Omnibus Amendment 2 document, but the maker stated that the motion, and that interpretation of it, was consistent with his intent—to

leave the HAPCs in the document until a separate management action was initiated. It was suggested that the Council should explore the idea of creating a new FMP for corals as a way of maximizing the Councils conservation abilities.

Audience discussion on the motion

Mr. Smolowitz stated that this was not an efficient way to address the issue. Ms. Raymond (Associated Fisheries of Maine) said that the right thing to do was to remove the HAPCs from the Omnibus Amendment 2, and was in favor of the motion. Ms. Spinazzola was opposed to the motion due to the uncertainty it appears to create.

Omnibus Phase II Vulnerability Analysis

The Committee Chair summarized the PDT conference call memo for the Committee, which discusses the rationale for shifting from a formal risk analysis to a less formal vulnerability analysis. One Committee member wanted to know if a risk analysis was required--the Chair informed him that it is not, and clarified that the PDT's clear intention is to provide the Committee with the best possible information for decision making. He emphasized the need to be on the firmest possible grounds prior to taking any action that may restrict fishing activities. Another Committee member expressed skepticism that the vulnerability analysis would be able to provide a useful, actionable basis for creating alternatives for management restrictions. There was concern that a vulnerability analysis may take the Council down a "wrong road" while taking a fair amount of the PDT's time. Another Committee member felt strongly that a quantitative analysis could not be performed in this case due to a lack of information. Further, two of the PDT's critical components for the vulnerability assessment, recovery and disturbance, may prove to be impossible to assess. He advised caution on the part of the Committee and PDT. The fact that non-fishing impacts would be assessed in the vulnerability analysis as a component of cumulative impacts was also mentioned.

Audience comments on the Committee discussion

Mr. Smolowitz expressed a concern with how to progress with Phase II. He stated that the Gear Effects Workshop was inadequate as it was based on hand-picked individuals who were asked to vote on particular impacts. For going forward, there are problems with knowing where particular habitats truly are, what the actual impacts of the gears are, and the fact that natural disturbance can have a huge impact. There may be no way to generalize the impacts of, for example, an otter trawl. Further, the studies on gear impacts do not all lead to consistent findings--there would be a 'battle of papers' and it would be up to the PDT to make the determinations. He was afraid, ultimately, that the Committee would go down the same path as in Amendment 10 to the scallop FMP and Amendment 13 to the groundfish FMP. Mr. Brogan stated that while a quantitative study is idea, the qualitative approach is appropriate given the state of current data. He pointed out that there is a substantial literature available in peer reviewed journals that should form the basis for such an assessment.

Assessment of adverse impacts to EFH from fishing by FMCs

Staff gave a short presentation summarizing the approaches taken by the seven other FMC toward meeting the MSA objective of minimizing to the extent practicable the adverse impacts of fishing on essential fish habitat.

Committee discussion

One Committee member noted that, in areas where comprehensive assessments have not been completed, it was perhaps due to prudence and a desire for Councils to not over-extend themselves by doing more than the available data can support.

Audience discussion

Mr. Brogan inquired about the Center for Independent Experts critique of the North Pacific FMC's quantitative-based assessment approach. The PDT Chair stated that the primary criticism was inability to validate the quantitative habitat reduction model. Dr. Stevenson (NMFS, Habitat PDT) added that the report also recommended a broader evaluation of effects in the literature, as they had concentrated only on papers assessing impacts within their project area. Mr. Smolowitz noted that our area may have the best date in the world, but that it loses its value when folded into a ten-minute square for evaluation. The PDT Chair stated that the PDT had not determined the appropriate spatial binning yet.

Management options for minimizing adverse impacts of fishing on habitat

The PDT Chair gave a brief discussion of management options chapter from the National Research Council's report on the affects of trawling on habitat.

Committee discussion

One Committee member wanted to make sure that the 'peak year' of adverse impacts could be elucidated from the PDT's analysis, as that would provide the Council with a meaningful benchmark to determine the degree of minimization already attained. Another member discussed the fact that many of our fishing management measures are designed to keep people away from highly productive areas, which is likely to increase the adverse impacts of fishing on habitats. These two objectives may then run at cross purposes. The Chair reiterated one of the NRC reports conclusions, that the most efficient fishing will most of the time be a successful strategy for minimizing adverse fishing impacts. A Committee member lamented that the role of the Committee historically has been pigeon-holed into 'drawing boxes,' but that he hoped the Committee could find a way to dovetail effort reductions and gear modifications with the work of the FMP-based Committees.

Audience discussion

Mr. Smolowitz stated that efficiency solves many other problems in addition to minimizing adverse impacts of fishing. Ms. Raymond pointed out that if reductions in fishing effort were deemed the best way to protect habitat, would the fishery ever get to see increases in effort? And that, when looking at a map of proposed HAPCs overlaid with current area closures, if the Council were to close the HAPCs to fishing all the fishing effort would move onto Stellwagon Bank, which, in her opinion, can't be a good thing. Also, Ms. Raymond stated that she liked the way the North Pacific FMC stated its objectives for adverse fishing impacts minimization up front, and that it's important to remember that the ultimate goal is to increase fishery productivity. Mr. Minkiewicz wanted to encourage the Committee to consider measures beyond area closures and to consider increasing catch per unit effort as a means of minimizing adverse fishing impacts on habitats. He noted that the current system is not working well for

fisherman, and he doubted it worked well for habitat either. Mr. Taylor (Habitat Advisor) encouraged the Committee to consider tools to evaluate the success of any management measures that may be considered.

Last, the Committee reviewed the National Framework for Marine Protected Areas final comments letter and the Army Corps. of Engineers disapproval of the Winthrop (MA) beach nourishment project on the basis, in part, of the NMFS and NEFMC comments letters.

The meeting adjourned at approximately 2:50 PM.